

The Work of the DASA Research and Evaluation Section



The Division of Alcohol and Substance Abuse's Research and Evaluation Section was created to respond to the need to demonstrate the effectiveness of substance abuse prevention and treatment in serving the overall mission of the Department of Social and Health Services (DSHS), "to improve the quality of life for individuals and families in need." Through research and evaluation activities, DASA is able to document the role of alcohol- and drug-related services in enhancing client self-sufficiency; protecting vulnerable adults, children, and families; and assuring public safety and helping to build strong, healthy communities. Research also aids in the development of "best practices" that can be utilized by chemical dependency treatment providers in improving the quality of care, and provides the scientific basis for the development of sound public policy.

DASA's productivity in research and evaluation is due, at least in part, to the strong partnership it has developed with the research community over the last decade. This is most evident in the 70-member Research Subcommittee of the Citizen's Advisory Council on Alcoholism and Drug Addiction. Members are drawn from research institutions throughout the Northwest. DASA also coordinates a statewide "Bridging the Gaps" Workgroup, which seeks to forge new partnerships among researchers, prevention and treatment providers, and policymakers

Current Research Efforts

Some of the results of outcomes research conducted under the auspices of DASA on the benefits of prevention and treatment are displayed on the following pages. Below is a partial list of research projects currently underway:

- Methadone vs. Drug-Free Outpatient Treatment for Opiate Addicts
- Arrestee Drug Abuse Monitoring Project
- Study of the Effect of Student Learning Environment and Peer Substance Use on School Performance
- Analysis of Use, Cost, and Outcomes of Chemical Dependency Treatment Services in Oregon and Washington
- Evaluation of Washington State Drug-Free Workplace Program
- Follow-up of Former Washington State SSI/SSDI Recipients Diagnosed with Drug Addiction and Alcoholism
- Statewide Household Survey to Assess Need for Treatment Among Adults in Washington State
- Treatment Outcomes of Persons with Co-Occurring Mental Health and Substance Abuse Disorders
- Outcomes of Pregnant, Postpartum, and Parenting Women Who Receive Specialized Chemical Dependency Services
- Criminal Justice Outcomes of Youth Who Participate in Chemical Dependency Treatment

In addition, the Research and Evaluation Section is assisting in development of a web-based client outcome tracking system for use by providers, county coordinators, and state-level managers.

Adolescents

Pregnant Women TREATMENT **ADATSA Patients** Supplemental **Security Income** Recipients Mentally Ill Chemically Abusing Patients Low-Income **Patients Patients Receiving Opiate Substitution Treatment DUI Offenders** on Deferred **Prosecution Patient** Satisfaction



Profile of Adolescents Served in Publicly Funded Chemical Dependency Programs in Washington

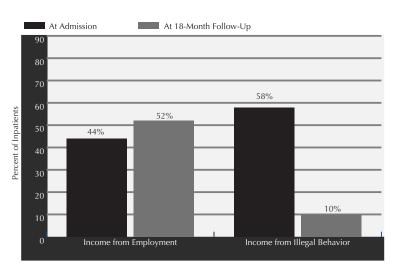
A 1999 study of adolescents (age 20 and younger) admitted to publicly funded chemical dependency treatment in Washington State revealed the following profile:

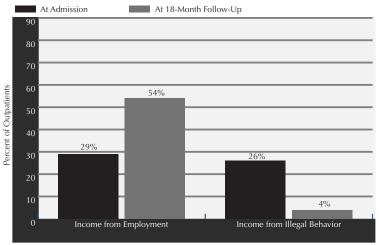
- Between 55-70% of youth admitted to residential treatment had run away from home at least once in their lives.
- Between 23-34% of youth had one or more emergency room visit in the year prior to admission.
- Between 68-78% of youth reported having one or more arrests in the year prior to admission.
- More than 62% of youth reported some form of involvement with the criminal justice system at time of admission.
- 90% of youth admitted to treatment began using their primary substance of abuse prior to age 16.
- Between 70-90% reported at time of admission that they currently smoke cigarettes.
- Between 23-37% of those admitted to residential treatment had been domestic violence victims.
- 89% of those admitted for treatment did not have a high school degree at time of admission; only 65% were enrolled in school full- or part-time.¹

The graphs on the following pages indicate the effectiveness of treatment in promoting positive outcomes among adolescents.

A Greater Number of Adolescents Reported Income Earned from Employment, and Less Income from Illegal Behavior After Treatment.





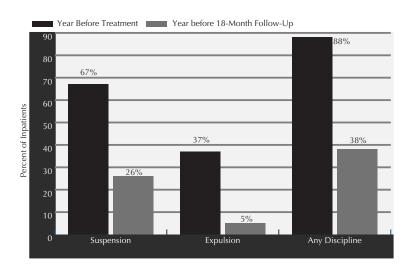


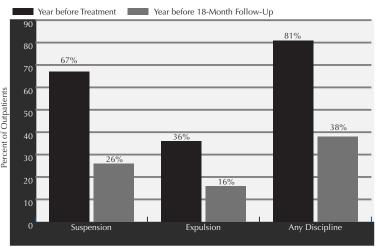
Source: New Standards, Inc. (1997). Washington State Division of Alcohol and Substance Abuse 18-Mont Adolescent Outcomes Report. St. Paul, MN: New Standards, Inc.

At the time of admission, adolescent inpatients were more likely to report income from illegal behavior than from legitimate employment, while outpatients were almost equally as likely to report income from both sources. At the time of the 18-month follow-up, however, adolescents who had been in both inpatient and outpatient treatment were 5 times more likely to report income from employment rather than illegal behavior.



School Discipline Problems for Adolescent Patients Decreased After Treatment.



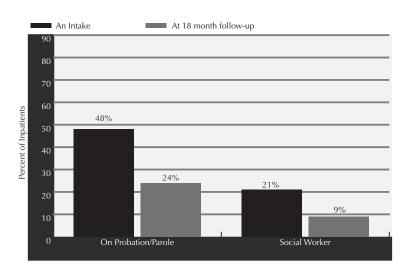


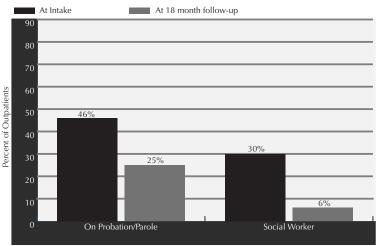
Source: New Standards, Inc. (1997). Washington State Division of Alcohol and Substance Abuse 18-Month Adolescent Outcomes Report. St. Paul, MN: New Standards, Inc.

Not surprisingly, adolescents with substance abuse problems tend to experience behavioral problems when attending school. After substance abuse treatment, however, the number of adolescents reporting any school discipline problems in the preceding year dropped by 50%. An especially encouraging outcome is the substantial reduction in school expulsions for youth receiving either inpatient or outpatient treatment. Additional study results also showed a corresponding improvement in school grades after treatment.

A Lower Percentage of Adolescent Patients were Under Legal Supervision 18 Months After Treatment.







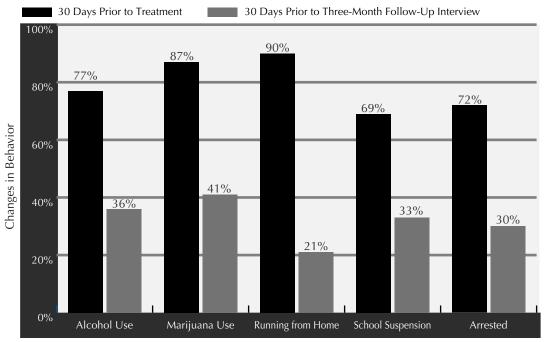
Source: New Standards, Inc. (1997). Washington State Division of Alcohol and Substance Abuse 18-Month Adolescent Outcomes Report. St. Paul. MN: New Standards, Inc.

A large proportion of children involved in the juvenile justice system have substance abuse problems, and similarly, a large portion of juveniles in chemical dependency treatment programs are involved in criminal activities. Therefore, it is expected that obtaining substance abuse treatment will have a positive effect on criminal behavior as well as decreasing or ceasing substance use.

As expected, legal involvement by adolescents decreased considerably after treatment for both inpatients and outpatients. Compared to their status at intake, approximately half as many adolescents were on parole or probation at the time of follow-up. There was a similar reduction in supervision by social workers for inpatients, and only 6% of outpatients were under a social worker's supervision at the 18 -month follow-up, compared to 30% at intake.



"Becca" Youth Who Complete Residential Chemical Dependency Treatment Are Much Less Likely to Use Alcohol or Marijuana, Less Likely to Run Away from Home, and Less Likely to Be Suspended from School or Arrested.



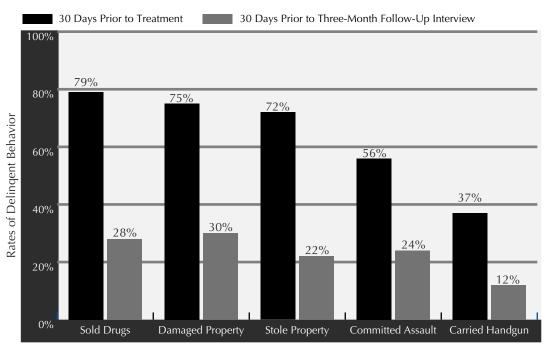
Source: Peterson, P., Srebnik, D., Banta-Green, C., Baxter, B. (1997). Treatment Outcome Evaluation: Youth Admitted to Residential Chemical Dependency Treatment Under the Provisions of the "Becca" Bill. Seattle, WA: Alcohol and Drug Abuse Institute, University of Washington.

The 1995 At-Risk/Runaway Youth Act created the "Becca" program, named after a youth who was murdered after she ran away from home. Becca youth are chemically dependent adolescents who are beyond their parent's control and/or are chronic runaways. These youth are estimated at approximately 3-4% (1,350 to 2,250) of the 45,000 youth ages 13-19 who are in need of substance abuse treatment. Most are ages 14 to 16.

While the needs of Becca Youth are very high, this graph indicates that residential chemical dependency treatment results in significant positive changes in behavior following treatment completion.

Rates of Delinquent Behavior Among "Becca" Youth Decline Substantially Following Completion of Residential Chemical Dependency Treatment.

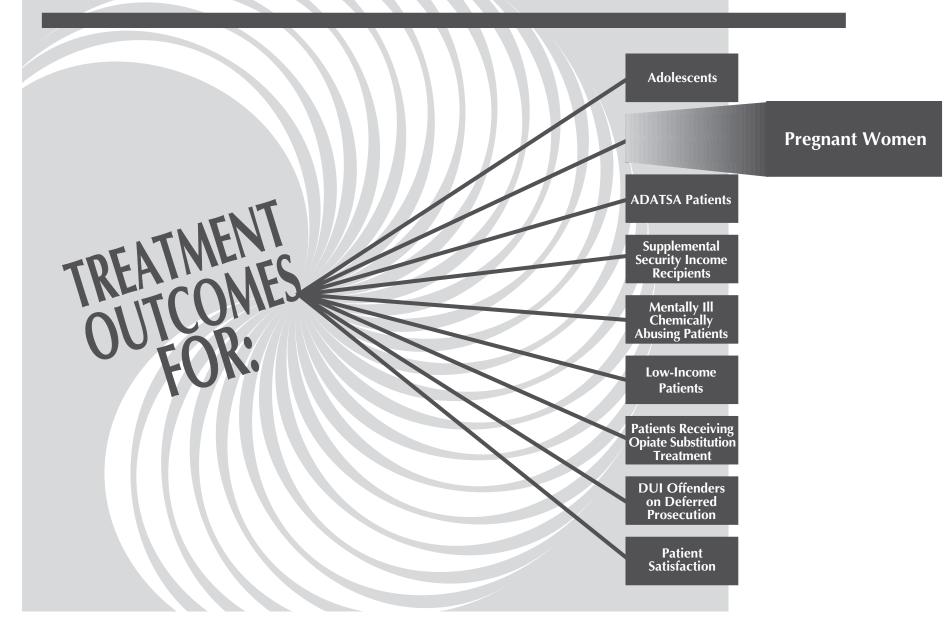




Source: Peterson, P., Srebnik, D., Banta-Green, C., Baxter, B. (1997). <u>Treatment Outcome Evaluation: Youth Admitted to Residential Chemical Dependency Treatment Under the Provisions of the "Becca" Bill.</u> Seattle, WA: Alcohol and Drug Abuse Institute, University of Washington.

This graph indicates that Becca youth who receive chemical dependency treatment are much less likely to engage in delinquent behavior following treatment completion. In this 1997 study conducted by the University of Washington, the percentage of Becca youth involved in selling drugs declined by 64.6%; those stealing property dropped by 60.4%; and the percentage of those who committed assault dropped by 57.1%.

The 1995 At-Risk/Runaway Youth Act created the "Becca" program, named after a youth who was murdered after she ran away from home. Becca youth are chemically dependent adolescents who are beyond their parent's control and/or are chronic runaways. These youth are estimated at approximately 3-4% (1,350 to 2,250) of the 45,000 youth ages 13-19 who are in need of substance abuse treatment. Most are ages 14 to 16.





Chemically dependent pregnant, post-partum, and/or parenting women (PPWs) present significant challenges and opportunities to both treatment providers and policy makers. As mothers or mothers-to-be, PPWs and their children have a range of medical, social, and residential needs that must be met if treatment is to succeed. However, successful treatment results in outcomes that benefit not only women, but their children, entire families, and communities.

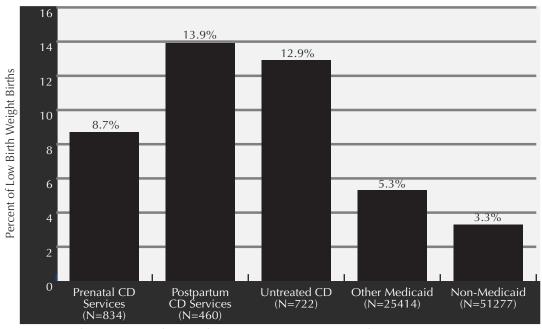
A 1999 study of PPWs admitted to publicly funded chemical dependency treatment in Washington State revealed the following profile:

- More than 60% of PPWs admitted to treatment had been victims of domestic violence.
- Up to 15% reported being homeless.
- Over 50% reported public assistance as their primary source of income.
- Between 38-73% had visited an emergency room one or more times in the year prior to treatment admission.
- Over one-quarter reported having received mental health treatment in the year prior to admission.
- More than 60% had been arrested in the year prior to admission; between 50-66% were involved with the criminal justice system at time of admission.
- Between 26-63% reported having used injection drugs.
- Between 77-92% reported they currently smoke cigarettes.¹

The graphs on the following pages indicate the effectiveness of treatment in promoting positive outcomes for PPWs and their children.

Substance Abusing Women Who Received Chemical Dependency Treatment Prenatally were Less Likely to Have a Low Birth Weight Baby.





Source: Cawthon, L. (1993). Substance Abuse in Pregnancy. First Steps Database, 3 (1).

Note: **Prenatal CD Services** refers to women who received substance abuse treatment during the prenatal period. **Postpartum CD Services** refers to women who were diagnosed as substance abusers in the year after delivery and were neither diagnosed nor treated during the prenatal period.

Untreated CD refers to women diagnosed as substance abusers during the prenatal period but did not receive substance abuse treatment in the prenatal period.

Other Medicaid refers to women with Medicaid funded maternity services who were not identified as substance abusers.

Non-Medicaid refers to women with no Medicaid payments for maternity services who were not identified as substance abusers.

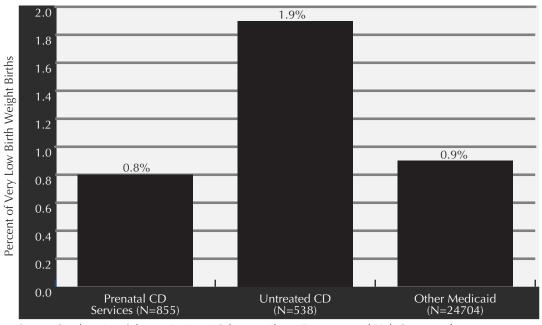
According to Cawthon, birth weight is a primary indicator of the health of the newborn infant. Newborn infants weighing less than 5.5 pounds (2500 grams) are considered low birth weight. Low birth weight is associated with increased risk of death and a wide range of disorders including neuro-developmental conditions, learning disorders, behavior problems, and lower respiratory tract infection.

Fewer low birth weight babies among women who participate in chemical dependency treatment means that treatment is associated with healthier babies.

¹ Cawthon, L. (1993) Substance abuse in pregnancy, Washington State Department of Social and Healther Services, First Steps Database 3 (1).



The Rate of Very Low Birth Weight Babies (<1,500 Grams) Born to Substance-Abusing Women Who Received Prenatal Chemical Dependency Treatment was Less than Half That of Untreated Substance-Abusing Women.



Source: Cawthon, L. & Schrager, L. (1995). Substance Abuse, Treatment, and Birth Outcomes for Pregnant and Postpartum Women in Washington State. First Steps Database, 5 (1).

Note: **Prenatal CD Services** refers to women who received substance abuse treatment during the prenatal period. **Untreated CD** refers to women diagnosed as substance abusers during the prenatal period but did not receive substance abuse treatment in the prenatal period.

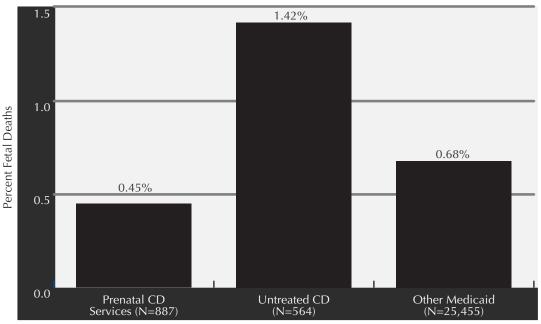
Other Medicaid refers to women with Medicaid funded maternity services who were not identified as substance abusers.

According to *Healthy People 2000*, about 26% of very low birth weight infant survivors had moderate or severe disabilities.² These include I.Q.'s below 80, cerebral palsy, major seizure disorders, and blindness. Aside from the personal and emotional costs, such disabilities place a continuing financial burden on the family and may eventually limit the child's ability to work and earn a living in adulthood.

Fewer very low birth weight babies among women who participate in chemical dependency treatment means that treatment

The Fetal Death Rate for Substance-Abusing Pregnant Women was One-Third That of Untreated Substance Abusing Pregnant Women.





Source: Cawthon, L. & Schrager, L. (1995). Substance Abuse, Treatment, and Birth Outcomes for Pregnant and Postpartum Women in Washington State. First Steps Database, 5 (1).

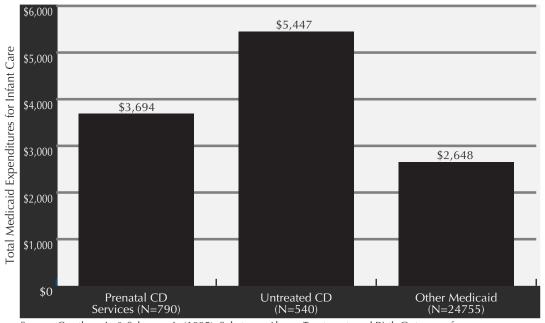
Note: **Prenatal CD Services** refers to women who received substance abuse treatment during the prenatal period. **Untreated CD** refers to women diagnosed as substance abusers during the prenatal period but did not receive substance abuse treatment in the prenatal period.

Other Medicaid refers to women with Medicaid funded maternity services who were not identified as substance abusers.

Fetal death, or stillbirth, is associated with pregnancies complicated by maternal medical conditions including substance abuse. Fewer fetal deaths among women who participate in chemical dependency treatment means that such treatment is associated with healthier babies.



Average Medicaid Costs During the First Two Years of Life were Lower for Infants Born to Women Who Received Chemical Dependency Treatment in the Prenatal Period than for Those Born to Substance-Abusing Women Who Did Not Receive Treatment.



Source: Cawthon, L. & Schrager, L. (1995). Substance Abuse, Treatment, and Birth Outcomes for Pregnant and Postpartum Women in Washington State. First Steps Database, 5 (1).

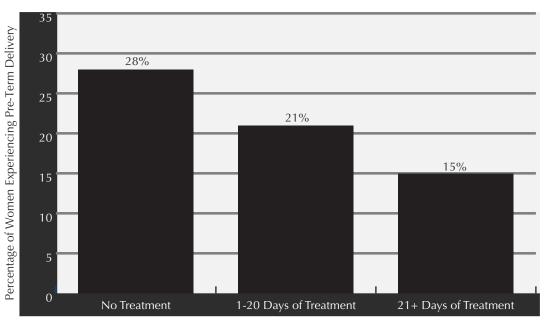
Note: **Prenatal CD Services** refers to women who received substance abuse treatment during the prenatal period. **Untreated CD** refers to women diagnosed as substance abusers during the prenatal period but did not receive substance abuse treatment in the prenatal period.

Other Medicaid refers to women with Medicaid funded maternity services who were not identified as substance abusers.

Low birth weight is the single most important factor in determining infant medical care expenditures during the neonatal period. The average Medicaid expenditure for infant care during the first two years of life for infants born to untreated substance abusers was 1.4 times that for the infants of women who received prenatal substance abuse treatment and more than twice that for infants of other (non-substance abusing) Medicaid women.

Pregnant, Substance-Abusing Women Who Receive 21+ Days of Chemical Dependency Treatment are Much Less Likely to Experience a Pre-Term Delivery Than Women Who Do Not Receive Treatment.





Source: Washington State Division of Alcohol and Substance Abuse. (1999). Washington State MOMS Project: Perinatal Research and Demonstration Project – Final Report.

A 1999 National Institute on Drug Abuse-funded study of the MOMS Project, which delivered woman-specific chemical dependency treatment services to pregnant women in Washington State in need of them, found a 46.4% reduction in pre-term deliveries for women who remained in treatment for 21 days or longer. Treatment was also associated with lower rates of fetal or infant death, lower rates of placental abruption, and improved birth outcomes.

Adolescents **Pregnant Women** TREATMENT OUTCOMES, Supplemental Security Income Recipients Mentally III Chemically Abusing Patients Low-Income **Patients Patients Receiving Opiate Substitution** Treatment **DUI Offenders** on Deferred **Prosecution Patient** Satisfaction

ADATSA Patients



Chemical Dependency Treatment is Associated with Positive Outcomes Among ADATSA Patients

In 1999, 6,979 Washington residents received chemical dependency treatment under the Alcohol and Drug Addiction and Support Act (ADATSA). Enacted in 1987, this legislation created a program to treat adults addicted to alcohol or other drugs. To qualify, clients must be indigent, unemployable, and incapacitated due to their addiction. A maximum of six months of treatment and financial support is provided in any two-year period. The immediate goal of the program is abstinence, while ancillary goals include improved personal coping skills, as well as social and vocation skills. Success in moving toward these goals is expected to result in improving in reach the long-term objective of self-sufficiency.

The typical ADATSA patient is an unmarried, white male in his early thirties, often homeless, living alone or with non-relatives, and often involved with the criminal justice system. One-third of patients are female, and one-third of patients are ethnic minorities. The average patient has had a 15-year history of substance abuse starting at age 16, with one or more prior treatment episodes. A significant number have physical, mental, or emotional problems.¹

A group of 151 ADATSA patients who had completed a continuum of care were studied to determine the outcome of treatment six months after treatment. Key findings included:

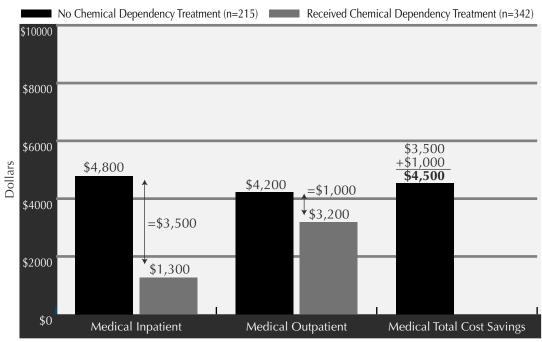
- 79.5% had been abstinent for the past three months.
- 39.7% had been employed full-time and 21.9% had been employed part-time in the past three months.
- 80.8% attended Alcoholics Anonymous meetings in the past three months; 33.1% received aftercare services during the same time period.²

¹ Brown, M., Longhi, D., Luchansky, B. (1997). Employment outcomes of chemical dependency treatment and additional vocatioin services publicly funded by Washington State: A four-and-a-half year follow-up study of indigent persons served by Washington's State's Alcoholism and Drug Addiction Treatment and Support Act (ADATSA). Olympia, WA: Washington State Department of Social and Health Services, Research and Data Analysis.

² Van Der Hyde, V., Kamara, S., Holman, E., Clegg, D., West, B. (1995). ADATSA follow-up study of extended outpatient care: A comparison of 90 days versus 180 days of outpatient treatment for clients of Washington State's Alcoholism and Drug Addiction Treatment and support Act. Olympia, WA: Washington State Department of Social and Health Services, Office of Research and Data Analysis.

Average Medical Costs for ADATSA Patients Who Received Chemical Dependency Treatment were \$4,500 Lower than Those for Untreated Patients Over a Five-Year Follow-Up Period.





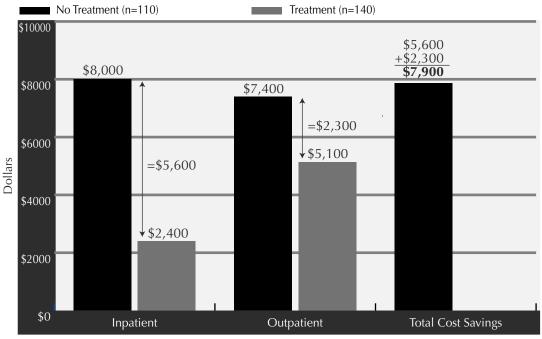
Source: Office of Research and Data Analysis, Washington State Department of Social and Health Services, 1997.

This graph indicates that chemical dependency treatment can result in lower medical expenses. Over a five-year period, treated ADATSA patients had medical costs averaging \$4,500 less than those who did not receive treatment. Inpatient hospital expenses averaged \$3,500 less, while outpatient medical expenses averaged \$1,000 less.

¹ Luchansky, B., and Longhi, D. (1997). Cost savings in Medicaid expenses: an outcome of publicly funded chemical dependency treatment in ashington State: A five year cost savings study of indigent persons served by Washington's State's Alcoholism and Drug Addiction Treatment and Support Act (ADATSA). Olympia, WA: Washington State Department of Social and Health Services, Research and Data Analysis.



For ADATSA Patients with Medicaid Medical Expenses Prior to Admission, Chemical Dependency Treatment was Associated with \$7,900 in Overall Savings in Medical Expenses Over a Five-Year Follow-Up Period.



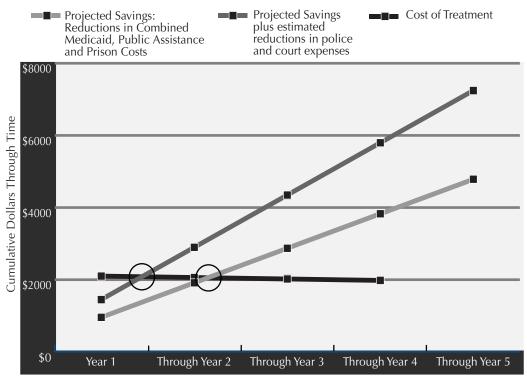
Source: Office of Research and Data Analysis, Washington State Department of Social and Health Services, 1997.

This graph indicates striking savings in medical expenses for ADATSA patients with Medicaid medical expenses prior to admission in the five years following chemical dependency treatment. Overall savings totaled \$7,900 — \$2,400 in hospital inpatient, and \$5,100 in medical outpatient expenses.¹ Chemical dependency treatment is a wise investment, both in the health of ADATSA patients, and in reducing overall health expenses.

¹ Luchansky, B., and Longhi, D. (1997). Cost savings in Medicaid expenses: an outcome of publicly funded chemical dependency treatment in ashington State: A five year cost savings study of indigent persons served by Washington's State's Alcoholism and Drug Addiction Treatment and Support Act (ADATSA). Olympia, WA: Washington State Department of Social and Health Services, Research and Data Analysis.

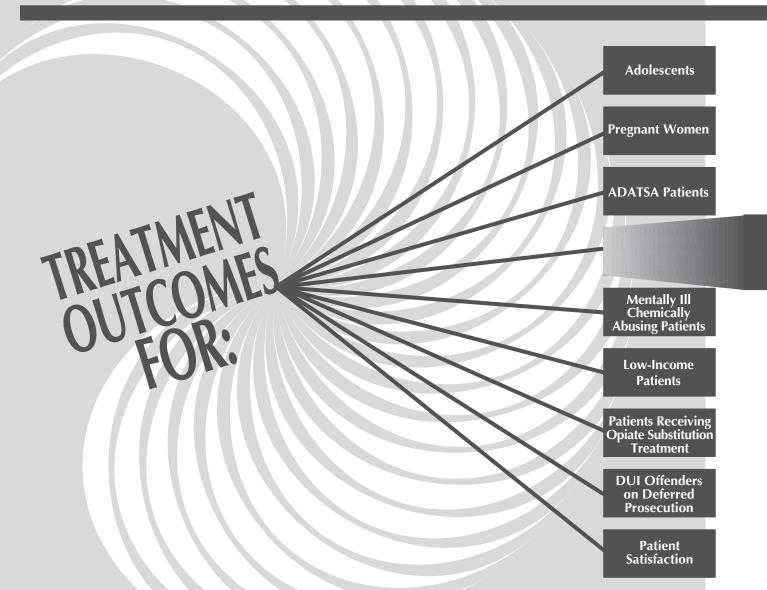
Chemical Dependency Treatment Provided to ADATSA Patients Results in Reduced Costs to the Public Over a Five-Year Follow-Up Period.





Source: Division of Research and Data Analysis, Washington State Department of Social and Health Services. (1997).

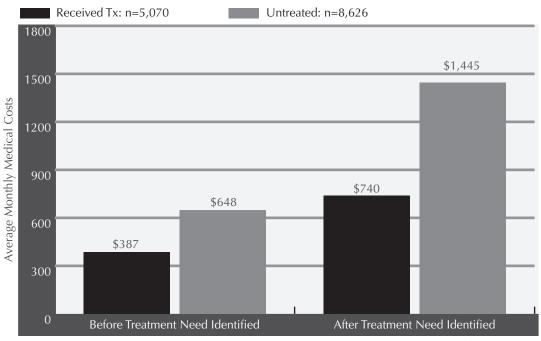
This five year comparison of projected incremental savings with projected treatment costs for ADATSA (Alcoholism and Drug Addiction Treatment and Support Act) patients shows that the overall incremental savings are \$7,200, while the cumulative treatment costs total \$1,940. This means that every additional dollar spent on the treatment group results in \$3.71 in savings by the end of the five year period. When estimated reductions in police and court expenses are added to the projections, the break-even point between costs and savings occurs much sooner. Additional funds spent on treatment pay for themselves in just over one year.



Supplemental Security Income Recipients



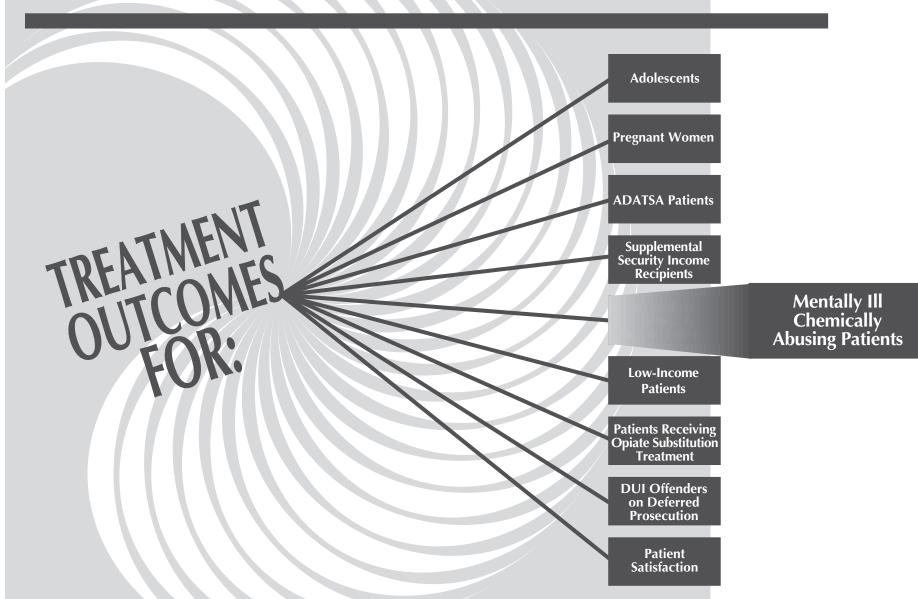
Chemical Dependency Treatment is Associated with Much Lower Medical Costs Among Supplemental Security Income (SSI) Recipients.



Source: Estee, S. & Nordlund, D. (2001). Washington State Supplemental Secutiv Income Cost Offset Pilot Project: 2001 Progress Report. Olympia, WA: Department of Social and Health Services, Research and Data Analysis.

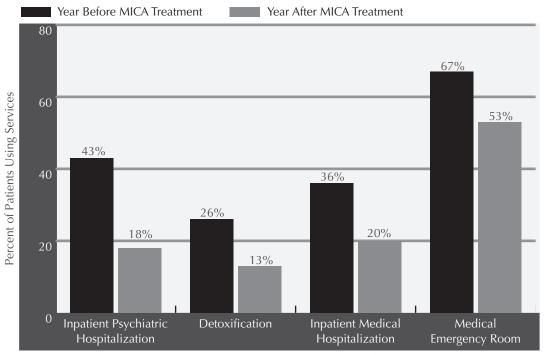
Medical and chemical dependency treatment records for nearly 104,000 adult Social Security Insurance (SSI) recipients were examined to determine need for and receipt of chemical dependency treatment services. Of these recipients, 13% were in need of treatment, and 38% of those in need received treatment between July 1997 and December 2000.

Medical cost differences between those who received treatment and those who did not were measured. After adjusting for age, race, sex, and prior medical costs, the average monthly medical costs were \$540 higher for those not receiving chemical dependency treatment than for those who received at least some treatment, or a yearly cost differential of \$6,480. The Division of Alcohol and Substance Abuse has now expanded services in its SSI Cost Offset Pilot Project, and is contracting with the Department of Social and Health Services, Research and Data Analysis Division to examine differences in mental health and criminal justice costs and in mortality resulting from chemical dependency treatment.





Mentally Ill Chemically Abusing Patients Utilize Fewer Medicaid Services Following Discharge from Residential Treatment.

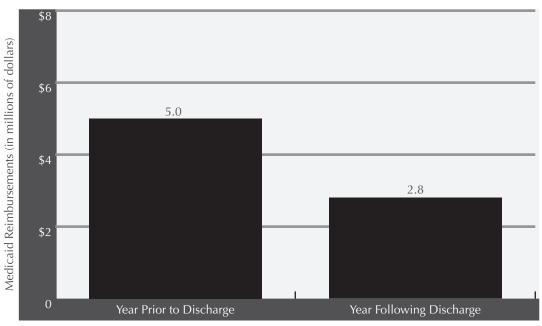


Source: Maynard, C., Cox, G., Krupski, A., and Stark, K. (1999). Utilization of Services for Mentally III Chemically Abusing Patients Discharged from Residential Treatment. <u>The Journal of Behavioral Health Services & Research</u> 26:2, May 1999.

A significant number of Medicaid patients receiving residential services are diagnosed with both mental illness and substance abuse disorders. Treating both disorders in an integrated manner has proven effective in enhancing health-related outcomes. This graph indicates that Medicaid expenses for patients receiving coordinated services in a residential setting decreased by 44% in the year following discharge from the year prior to discharge.

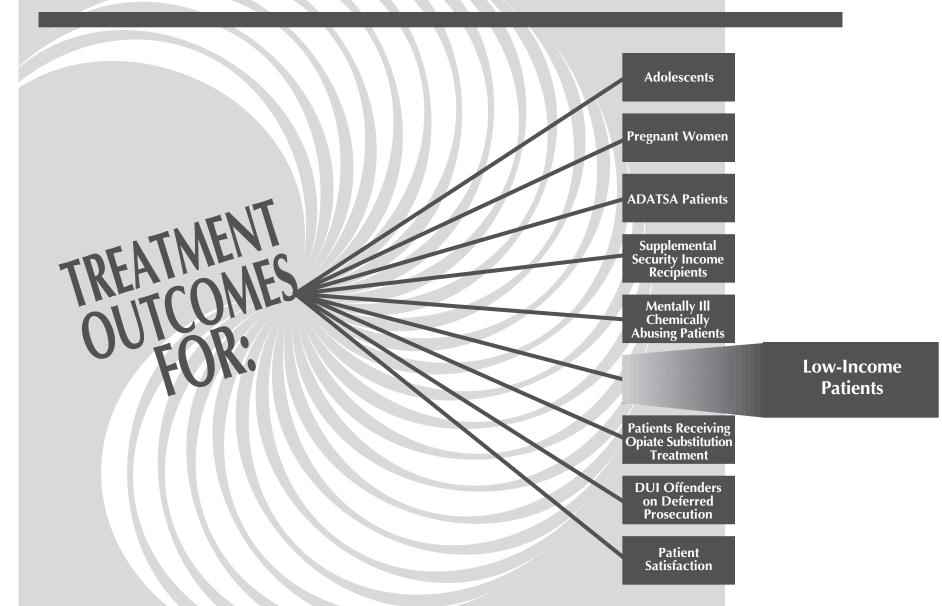
Use of Expensive Acute Care Services Decreased for Mentally III Chemical Abusing Patients Following Discharge from Integrated Residential Treatment





Source: Maynard, C., Cox, G., Krupski, A., and Stark, K. (1999). Utilization of Services for Mentally Ill Chemically Abusing Patients Discharged from Residential Treatment. <u>The Journal of Behavioral Health Services & Research</u> 26:2, May 1999.

Integrated mental health/chemical dependency treatment has proven effective in reducing use of acute care services for mentally ill chemical abusing patients following discharge. The percentage of patients requiring inpatient psychiatric hospitalization fell by 58%; detoxification by 50%; inpatient medical hospitalization by 44%; and use of emergency rooms by 21% in the year following discharge.





Profile of Adults Receiving Temporary Assistance for Needy Families Admitted to Publicly Funded Chemical Dependency Treatment Programs in Washington

Washington State has made great progress in moving individuals off the welfare rolls and into employment. However, challenges remain in serving individuals who have significant barriers to employment, including substance abuse problems.

A study of adults receiving Temporary Assistance for Needy Families (TANF) admitted to publicly funded treatment in Washington State, July 1998—June 1999, revealed the following profile:

- Those receiving TANF represented 11.1% of adults admitted to publicly funded treatment.
- Almost 80% were women.
- One out of three women did not have a high school diploma or GED.
- Three out of four women reported they had been a victim of domestic violence at some point in their lives.
- 21% reported receiving mental health treatment in the past year.
- 56% of women and 71% of men had one or more arrests in the past year.
- One out of three women reported using injection drugs at some point in their lives.
- Alcohol (44.2%) and stimulants (33.5%) were the most commonly used substances among TANF adults, followed by marijuana (12.7%) and heroin (6.1%).

The information on the following pages indicates the effectiveness of treatment in promoting positive outcomes for low-income adults.

Publicly Funded Residential Chemical Dependency Treatment Results in Improved Outcomes in Employment and Medical Status, Lower Substance Use and Higher Rates of Abstinence, and Reduced Criminal Activity.

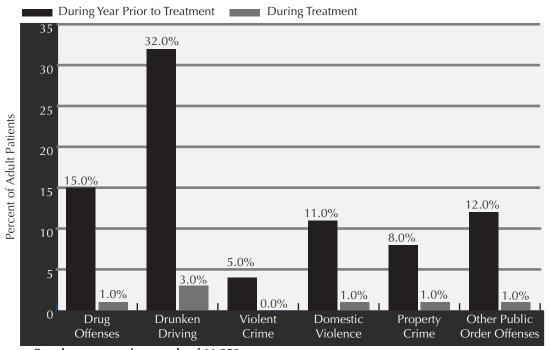


A 1999 study was undertaken by the University of Washington's Alcohol and Drug Abuse Institute to assess the quality and effectiveness of the Division of Alcohol and Substance Abuse's publicly funded adult residential chemical dependency treatment system. Some 577 low-income patients were assessed at admission to treatment, and six months following their discharge. The study found:

- Patients were much less likely to use alcohol and illegal drugs following treatment. Self-reported abstinence rates for alcohol use in the past 30 days increased by 87%, and by 109% for drug use. Of those who continued to report any drug use, the percentage of patients who used any illegal drugs for seven or more of the past 30 days declined 74%, from 50% at treatment admission to 13% at follow-up.
- The average number of self-reported days of illegal activity declined 85%. Average 30-day earnings from illegal activity declined 93%, from \$485 at admission to \$32 at follow-up.
- In the 30 days prior to admission to treatment, only 19.8% of patients worked 10 or more days. In the 30 days prior to the six-month post-discharge follow-up, 40.7% worked 10 or more days, representing a 94% increase. Average monthly income increased from \$159 at admission to \$568 at follow-up.
- The percentage of patients reporting no days of medical problems during the past 30 days increased by 25% at the post-discharge follow-up. The number of days with mental health distress was reduced by 48%
- The number of days with significant family conflict during the past 30 days declined by 62% at the post-discharge follow-up.¹



Criminal Arrests Decreased Among Publicly-Funded Chemical Dependency Patients During Outpatient Treatment Compared to the Year Prior to Treatment.



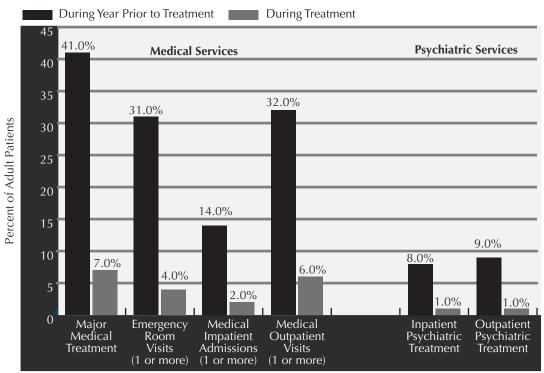
Based on a purposive sample of 11,253 cases.

Source: Baxter, B. L. and Stevenson, J. (1998) Changes in Clients' Alcohol/Other Drug Use and Lifestyles During Publicly - Supported Chemical Dependency Treatment in Washington State: October 1996 - September 1997 Discharges. Seattle, WA: University of Washington Alcohol and Drug Abuse Institute.

Based on data from the Division of Alcohol and Substance Abuse's management information system (TARGET), fewer adult patients in outpatient treatment were arrested during treatment compared to the year prior to treatment. This suggests an association between chemical dependency treatment and reduced criminal arrests and a possible savings in public resources and in the personal and emotional costs of crime.

Health Services Utilization Decreased among Publicly-Funded Chemical Dependency Patients During Outpatient Treatment Compared to the Year Prior to Treatment.





Based on a purposive sample of 11,253 cases.

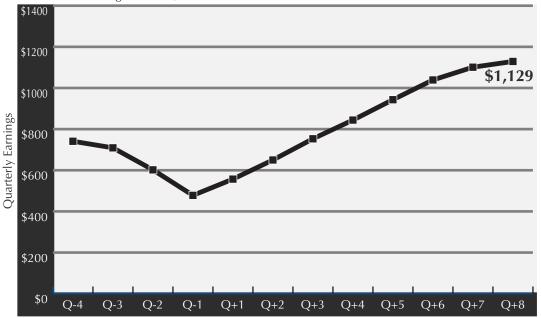
Source: Baxter, B. L. and Stevenson, J. (1998) Changes in Clients' Alcohol/Other Drug Use and Lifestyles During Publicly - Supported Chemical Dependency Treatment in Washington State: October 1996 - September 1997 Discharges. Seattle, WA: University of Washington Alcohol and Drug Abuse Institute.

Based on data from the Division of Alcohol and Substance Abuse's management information system (TARGET), fewer adult patients in outpatient treatment accessed medical treatment during treatment compared to the year prior to treatment. This suggests an association between chemical dependency treatment and reduced utilization of medical care services.



AFDC Clients Who are Employed Show Major Increases in Earnings Following **Chemical Dependency Treatment.**



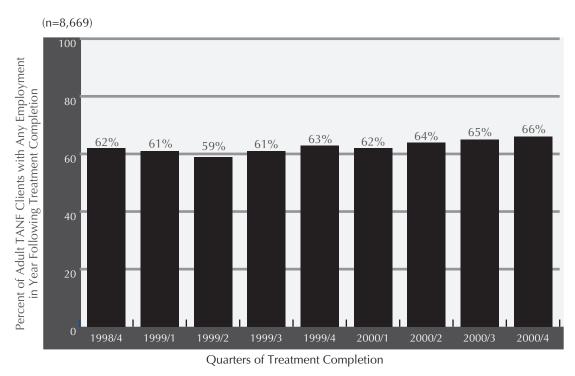


Source: Wickizer, T., Campbell, K., Krupskki, A., and Stark, K. (2000). Employment outcomes among AFDC recipients treated for substance abuse in Washington State. The Milbank Quarterly, 78:4, pp. 585-608.

This graph indicates that clients receiving AFDC ("Aid to Families with Dependency Children") support showed marked declines in employment income in the year prior to receiving chemical dependency treatment, and major increases in employment income in the two years following treatment. AFDC in Washington State has now been replaced by the TANF ("Temporary Assistance for Needy Families") program. This study published in 2000 confirms the results of earlier studies indicating that chemical dependency treatment assists low-income patients in moving toward self-sufficiency.

More than 60% of Adult Patients Completing Publicly Funded Chemical Dependency Treatment Become Gainfully Employed in the Year Following Discharge.





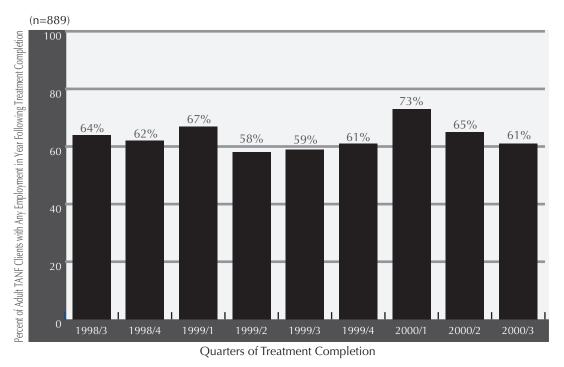
Source: Washington State Department of Social and Health Services, Research and Data Analysis (October 2001)

This graph indicates that more than 3 out of 5 adult low-income patients who completed chemical dependency treatment in the fourth quarter of Fiscal 2000, and did not require further treatment, became employed in the following 12 months. Average monthly wages in the last quarter of Fiscal 2000, were approximately \$1,041. More than half (62%) worked more than 20 hours a week; 63% earned wages above the Federal Poverty Level.

Approximately one-quarter (22%) of those who became employed worked more than 35 hours a week; 100% of these earned wages above the Federal Poverty Level, with an average monthly wage of \$1,790.

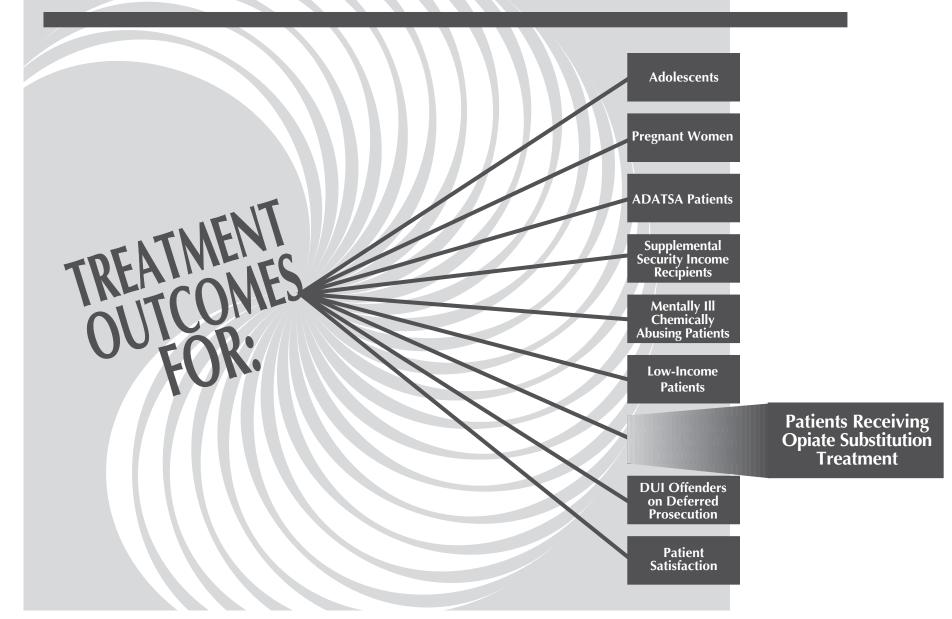


Approximately 3 out of 5 Adult Clients Enrolled in the Temporary Assistance for Needy Families (TANF) Program and Completing Publicly Funded Chemical Dependency Treatment Become Gainfully Employed in the Year Following Discharge.



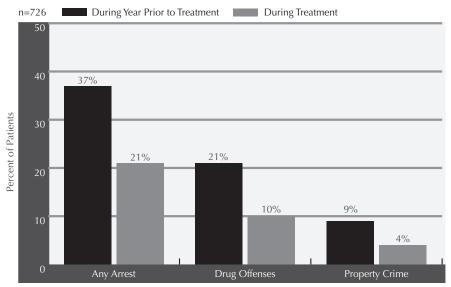
Source: Washington State Department of Social and Health Services, Research and Data Analysis (December 2001)

This graph indicates that of clients enrolled in the Temporary Assistance for Need Families (TANF) program who completed chemical dependency treatment in the third quarter of Fiscal 2000 and did not require further treatment, 61% became employed in the following 12 months. More than half (54%) worked more than 20 hours a week; 52% earned wages above the Federal Poverty Level. For TANF clients with substance abuse problems, chemical dependency treatment helps move them toward economic self-sufficiency.





Criminal Arrests Among Publicly Funded Opiate Substitution Patients Decreased During Treatment When Compared to the Year Prior to Treatment.



Source: Baxter, B., and Albert, D. (2001). <u>Report to the Legislature: Determining the Value of Opiate Substitution Treatment</u>. Olympia, WA: Department of Social and Health Services, Division of Alcohol and Substance Abuse.

This graph indicates that patients receiving publicly funded opiate substitution treatment are less likely to be arrested for a crime during treatment than in the year prior to treatment.

It is estimated that approximately 38,000 Washington State residents have been dependent upon opiates (primarily heroin) during their lifetime. Twelve opiate substitution clinics currently provide opiate substitution treatment to treat opiate addiction through administration of medication (e.g. methadone) and provision of counseling services. In addition, patients receive education, random urine drug screening to monitor drug use, and are subject to stringent rules regarding compliance. In State Fiscal Year 2001, 4,776 patients were enrolled in opiate substitution programs in Washington State, 2,870 of whom were publicly funded.

Opiate substitution treatment has scientifically been shown to work. The federal Office of National Drug Control Policy calls methadone therapy "one of the longest-established, most thoroughly evaluated forms of drug treatment." A Consensus Panel convened by the National Institutes of Health in 1997 concluded, "Methadone treatment significantly lowers illicit opiate drug use, reduces illness and death from drug use, reduces crime, and enhances social productivity."

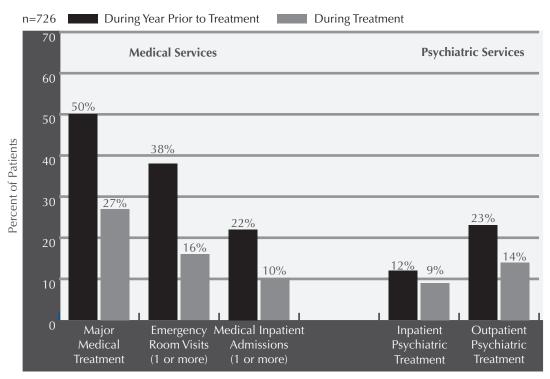
¹ Kohlenberg, E., Yette, R., and Mack, C. (1992). Needs assessment data project report: division of alcohol and substance abuse, fiscal year 1990. Olympia, WA: Department of Social and Health Services, Office of Research and Data Analysis. 1992.

² Office of National Drug Control Policy (2000). The national drug control strategy: 2000 annual report. Washington, DC: Office of the White House.

³ National Institutes of Health (1997). Effective medical treatment of heroin addiction: NIH consensus statement 1997, November 1

Health Care Utilization Among Publicly Funded Opiate Substitution Patients Decreased During Treatment When Compared to the Year Prior to Treatment.





Source: Baxter, B., and Albert, D. (2001). Report to the Legislature: Determining the Value of Opiate Substitution Treatment. Olympia, WA: Department of Social and Health Services, Division of Alcohol and Substance Abuse.

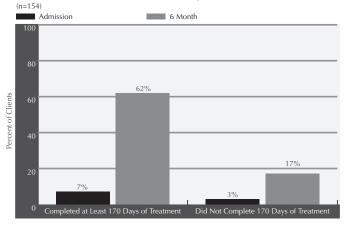
This graph indicates that patients receiving publicly funded opiate substitution treatment use fewer acute health care and psychiatric services during treatment than in the year prior to treatment. This results in significant cost savings throughout the health care system.



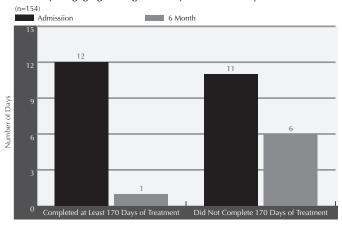
Remaining in Treatment Results in Improved Outcomes Among Patients Receiving Methadone Treatment.

A 2001 study of 154 patients admitted to methadone treatment found that at six-month follow-up, those who completed at least 170 days of treatment reported substantially higher rates of abstinence from heroin use, fewer days of illegal activity, and substantial decreases in money obtained through illegal activity.

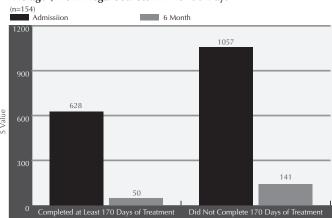
Abstinence from Heroin in Prior 30 Days

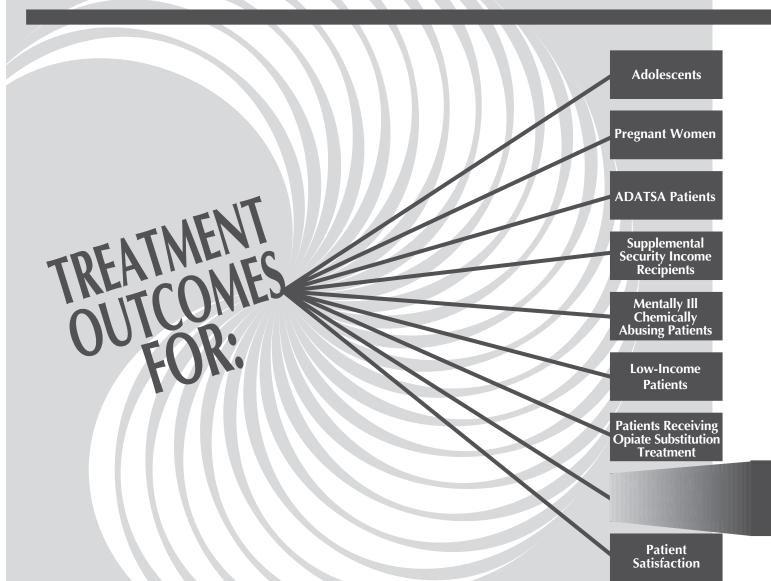


of Days Engaging in Illegal Activity in Prior 30 Days



Average \$ from Illegal Sources in Prior 30 Days

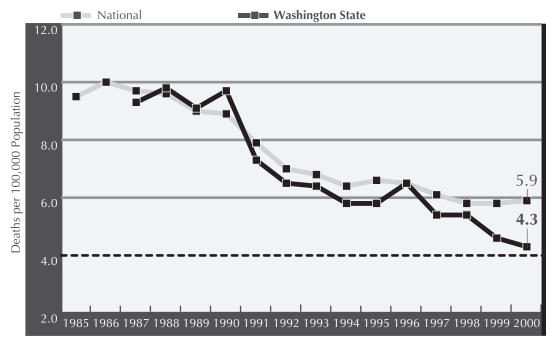




DUI Offenders on Deferred Prosecution



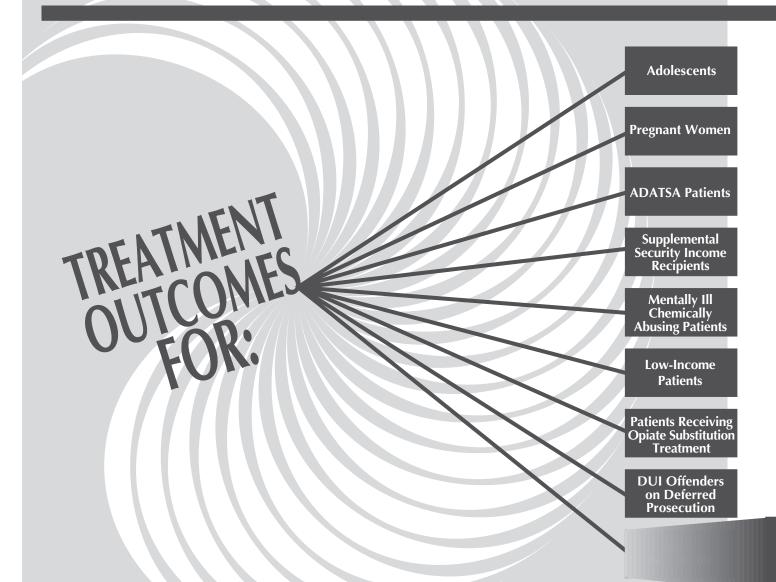
Alcoholic Convicted Drivers were More than Twice as Likely to Recidivate within Four Years After Disposition than Drivers on Deferred Prosecution.



Source: Baxter, B. L., Salzberg, P. M., & Kleyn, J. E. (1993). The Effectiveness of Deferred Prosecution in Reducing DWI Recidivism: An Update. (ADAI Technical Report 93-01.) Seattle, WA: University of Washington, Alcohol and Drug Abuse Institute.

To be eligible for deferred prosecution, a person accused of Driving Under the Influence (DUI) must be diagnosed as an alcoholic and/or drug addict. They must also agree to an intensive two-year program of chemical dependency treatment where complete abstinence from alcohol and all other psychoactive drugs is required. Unlike a person convicted of a DUI, a person granted deferred prosecution is allowed to retain their driver's license. In addition, the original charge is dismissed if, during the five year deferral period, the person completes all conditions of their court order and does not commit a similar offense. The expected outcome of treatment participation is a reduction in new DUI offenses among these persons.

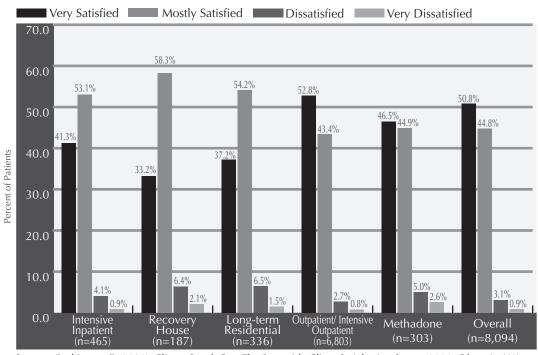
Findings from an evaluation conducted in 1990 suggest that deferred prosecution has had the desired effect. As the chart above illustrates, more than twice as many convicted drivers who were diagnosed as alcoholic committed an alcohol-related violation than did drivers given deferred prosecution in the four years after disposition.



Patient Satisfaction



In 2001, 96% of Patients Receiving Chemical Dependency Treatment Services Reported Overall Satisfaction with the Services They Received.



Source: Rodriquez, F. (2001). <u>Clients Speak Out: The Statewide Client Satisfaction Survey 2001</u>. Olympia, WA: Washington State Department of Social and Health Services, Division of Alcohol and Substance Abuse.

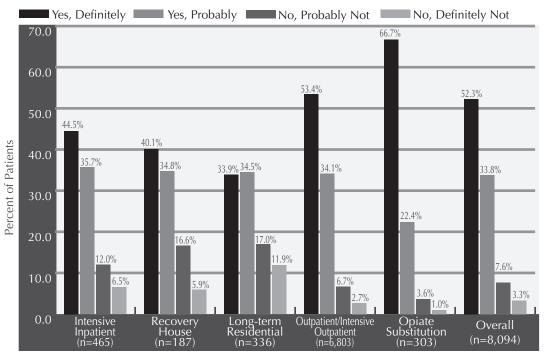
In an overall, general sense, how satisfied are you with the services you have received?

In March 2001, DASA conducted the first statewide client satisfaction survey. It was administered at 186 treatment centers to 8,094 patients, or 74% of those receiving treatment in the participating agencies during the week of the survey.

Overall, 93% of patients reported they were satisfied with the comfort and appearance of their treatment facility; 81% said they were always treated with respect by staff; 94% rated group sessions as helpful; and 86% reported they found individual counseling to be helpful.¹ Reports of responses to the survey were sent to each of the respective treatment agencies for use in quality improvement activities.

In 2001, 86% of Patients Receiving Chemical Dependency Treatment Services Reported They Would Return to the Same Program If They Needed Help Again.





Source: Rodriquez, F. (2001). <u>Clients Speak Out: The Statewide Client Satisfaction Survey 2001</u>. Olympia, WA: Washington State Department of Social and Health Services, Division of Alcohol and Substance Abuse.

If you were to seek help again, would you come back to this program?

Many patients receiving chemical dependency treatment services require other services as well. Treatment agencies can play a key role in assisting patients in identifying and accessing these services. Of those reporting a need for them, 72% of patients said their treatment program was helpful in connecting them to legal services; 80% to medical services; 76% to family services; 72% to mental health services; 67% to educational or vocation services; and 56% to employment services.